

CLAIMS

WHAT IS CLAIMED IS:

1. A trolley for use with an enclosed track having at least one curved portion, the enclosed track being an elongated hollow member having a top wall portion, a pair of side wall portions and a pair of flanged portions, the flanged portions being spaced from each other to define a slot therebetween extending longitudinally along the track, said trolley comprising a rolling section and a drive section, said rolling section comprising first and second roller portions, said first roller portion being located within the track and comprising at least one support roller arranged to roll on at least one of the flange portions of the track, said second roller portion comprising a driven wheel and a pair of support rollers, said drive section being located outside of the track and including a driving wheel, said driving wheel including a peripheral portion extending through the slot in the track and arranged for engaging said driven wheel to cause said driven wheel to rotate about a horizontal axis, said pair of support rollers comprising an upstream support roller and a downstream support roller, said upstream support roller being located adjacent one side of said drive wheel and mounted on said drive section for pivoting action about an upstream vertical axis, said downstream support roller being located adjacent a diametrically opposed side of said driven wheel and mounted on said drive section for pivoting action about a downstream vertical axis, whereupon said upstream and downstream support rollers are enabled to roll along at least one of the flange portions of the track while said driven wheel rolls along the top wall portion of the track in the center thereof.

2. The trolley of Claim 1 wherein a said drive section includes a motor for rotating said driving wheel.

3. The trolley of Claim 1 additionally comprising at least one spring for biasing said driven wheel into engagement with the top wall of the track.

4. The trolley of Claim 2 additionally comprising at least

one spring for biasing said driven wheel into engagement with the top wall of the track.

5        5. The trolley of Claim 1 wherein said upstream support roller is mounted on a vertically oriented upstream rod and said downstream support roller is mounted on a vertically oriented downstream rod, said upstream rod being slidably mounted within an upstream swing plate, said downstream rod being slidably mounted within an downstream swing plate, said upstream swing plate being pivotably mounted on said drive section about said upstream vertical axis, said downstream swing plate being pivotably mounted on said drive section about said downstream vertical axis, whereupon said upstream rod can sweep in an arc about said upstream vertical axis and said downstream rod can sweep in an arc about said downstream vertical axis.

15        6. The trolley of Claim 5 additionally comprising a biasing spring associated with each of said rods.

7. The trolley of Claim 1 wherein said driving wheel is mounted in a yoke for rotation about said horizontal axis, said yoke being supported on said drive section.

20        8. The trolley of Claim 7 wherein the vertical position of said driving roller with respect to said yoke is adjustable.

9. The trolley of Claim 8 wherein said yoke includes a vertically oriented slot and wherein said driven wheel is mounted on a horizontally extending axle, a portion of said axle being located within said slot.

25        10. In combination a trolley and an enclosed track having at least one curved portion, said enclosed track being an elongated hollow member having a top wall portion, a pair of side wall portions and a pair of flanged portions, said flanged portions being spaced from each other to define a slot therebetween extending longitudinally along said track, said trolley comprising a rolling section and a drive section, said rolling section comprising first and second roller portions, said first roller portion being located within said track and comprising at least one support roller arranged to roll on at least one of said flange portions of the track, said second

roller portion comprising a driven wheel and a pair of support rollers, said drive section being located outside of said track and including a driving wheel, said driving wheel including a peripheral portion extending through said slot in said track and arranged for engaging said driven wheel to cause said driven wheel to rotate about a horizontal axis, said pair of support rollers comprising an upstream support roller and a downstream support roller, said upstream support roller being located adjacent one side of said driven wheel and mounted on said drive section for pivoting action about an upstream vertical axis, said downstream support roller being located adjacent a diametrically opposed side of said driven wheel and mounted on said drive section for pivoting action about a downstream vertical axis, whereupon said upstream and downstream support rollers are enabled to roll along at least one of said flange portions of said track while said driven wheel rolls along said top wall portion of said track in the center thereof.

11. The combination of Claim 10 wherein a said drive section includes a motor for rotating said driving wheel.

12. The combination of Claim 10 additionally comprising at least one spring for biasing said driven wheel into engagement with the top wall of the track.

13. The combination of Claim 11 additionally comprising at least one spring for biasing said driven wheel into engagement with the top wall of the track.

14. The combination of Claim 10 wherein said upstream support roller is mounted on a vertically oriented upstream rod and said downstream support roller is mounted on a vertically oriented downstream rod, said upstream rod being slidably mounted within an upstream swing plate, said downstream rod being slidably mounted within a downstream swing plate, said upstream swing plate being pivotably mounted on said drive section about said upstream vertical axis, said downstream swing plate being pivotably mounted on said drive section about said downstream vertical axis, whereupon said upstream rod can sweep in an arc about said upstream vertical axis and said downstream

rod can sweep in an arc about said downstream vertical axis.

15. The combination of Claim 14 additionally comprising a biasing spring associated with each of said rods.

5 16. The combination of Claim 10 wherein said driving wheel is mounted in a yoke for rotation about said horizontal axis, said yoke being supported on said drive section.

17. The combination of Claim 16 wherein the vertical position of said driving roller with respect to said yoke is adjustable.

10 18. The combination of Claim 17 wherein said yoke includes a vertically oriented slot and wherein said driven wheel is mounted on a horizontally extending axle, a portion of said axle being located within said slot.